


WHAT IS CLAIMED IS:

1. A power transmission tower with a wind turbine mounted thereto, the tower comprising:

a generally vertical structure having a base anchored to the ground and a plurality of supporting arms for supporting power lines that transmit electrical power; and

a wind turbine having a rotor for driving a generator, the generator being connected to an upper portion of the transmission tower.
2. The tower as claimed in claim 1 wherein the structure is selected from the group consisting of lattice structures, monopole structures and hybrid structures.
3. The tower  as claimed in claim 2 further comprising at least one guy wire for stabilizing the tower, the at least one guy wire being connected at an upper end to the structure and at a lower end to the ground.
4. The tower as claimed in claim 1 wherein the wind turbine is a fixed-axis turbine.
5. The tower as claimed in claim 4 wherein the wind turbine has a fixed horizontal axis.
6. The tower as claimed in claim 4 wherein the wind turbine has a fixed vertical axis.
7. The tower as claimed in claim 1 wherein the wind turbine is a variable-axis turbine.

8. The tower as claimed in claim 1 further comprising a transformer for transforming a voltage output from the generator of the wind turbine into a different voltage for feeding into one of the power lines.
9. The tower as claimed in claim 1 further comprising a power inverter.
10. A power transmission tower supporting one or more wind turbines, the tower comprising:
 - a tower structure having a base anchored to the ground and supporting arms for supporting power lines for transmitting electrical power; and
 - at least one non-vertical-axis wind turbine connected to the transmission tower for generating electrical power for feeding into a power grid serviced by the tower.
11. The tower as claimed in claim 10 wherein the non-vertical-axis wind turbine has a fixed horizontal axis.
12. The tower as claimed in claim 10 wherein the non-vertical-axis wind turbine has a variable axis permitting a rotor of the wind turbine to tilt from a horizontal-axis posture to an oblique-axis posture.
13. The tower as claimed in claim 10 wherein the tower structure is selected from the group consisting of lattice structures, monopole structures and hybrid structures.
14. The tower as claimed in claim 13 further comprising at least one guy wire for stabilizing the tower

structure, the at least one guy wire being connected at an upper end to the tower structure and at a lower end to the ground.

15. The tower as claimed in claim 10 further comprising a transformer for transforming a voltage output from the generator of the wind turbine into a different voltage for feeding into one of the power lines.
16. The tower as claimed in claim 10 further comprising a power inverter.
17. A wind turbine kit for mounting a wind turbine to a power transmission tower, the kit comprising:
 - a non-vertical-axis wind turbine having a rotor for driving a generator; and
 - a connector for connecting the wind turbine to the tower.
18. The wind turbine kit as claimed in claim 17 wherein the non-vertical-axis wind turbine is a fixed horizontal-axis wind turbine.
19. The wind turbine kit as claimed in claim 17 wherein the non-vertical-axis wind turbine is a variable-axis wind turbine capable of tilting between a horizontal-axis posture and an oblique-axis posture.
20. The wind turbine kit as claimed in claim 17 further comprising at least one accessory selected from the group consisting of transformers and power inverters.